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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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SAWHNEY, HARGOBIND S

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 01/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/601,973

Applicant(s)

SIMON, JEROME H.

Examiner

Hargobind S. Sawhney

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15 and 22-26 is/are allowed.
- 6) ☒ Claim(s) 16,27,28 and 30 is/are rejected.
- 7) ☒ Claim(s) 17-21 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. The Request for Continued Examination (RCE) and the amendment filed on October 13, 2005 have been entered. Accordingly, Claim 1 has been amended; and new claims 16-30 have been added.

### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Claim 28, lines 1 and 2, "rays from the canted collimating ring lens not impinging on the reflector system;

Claim 16, lines 11 and 12, acutely projected rays not reflected by the lens recited in line 10.

Claim 30, lines 9 and 10, acutely projected rays not reflected by the lens recited in line 8.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure

number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

3. Claims 16-21, 27 and 30 are objected to because of the following informalities:

Claim 16, lines 10-12, "a lens at least partially covering said aperture that is shaped in such a manner as to not reflect acutely projected rays from the canted radial beam" does not specifically indicate the reference used for defining the acutely projected rays. The above-indicated feature is not adequately detailed in the specification, or shown in the figures. Similar deficiency exists in claim 30; therefore claim 30 is also objected.

Claim 27, line 11, "radial beams substantially parallel to the reflected beams" reflects the following:

A canted collimating ring lens surrounding the quasi-point light source; the ring lens collimating and refracting light beam emitted from the quasi-point light source; and the light beams getting refracted by the reflector system into reflected light beams.

Concern: With the above-indicated understanding, the collimated light beam cannot be parallel to the reflected light beam.

Claims 17-21 are necessarily objected because of their dependency on the objected base claim 16.

Appropriate correction is required.

Each of claims 16 and 30 has been examined considering the limitation "a lens at least partially covering said aperture that is shaped in such a manner as to not reflect acutely projected rays from the canted radial beam" as -- a lens at least partially covering the aperture; said the lens not further reflecting any portion of the canted radial beam reflected by the reflector system --.

Claim 27 has been examined considering the limitation "radial beams substantially parallel to the reflected beams" as -- a canted collimating ring lens surrounding the optical axis; the ring lens collimating radial beams from the quasi-point light source; a portion of the radial the collimated light beams reflected by the reflector system into reflected collimated light beams, and the remaining collimated light beams do not get reflected by the reflector system; the un-reflected collimated beams substantially parallel to the corresponding opposing reflected collimated beams.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 16, 27, 28 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Dejonc (US Patent No.: 4,159,511).

As best understood, regarding claims 16, 27, 28 and 30, Dejonc ('511) discloses a luminaire (Figure 1) comprising:

- an optical system – the combination including elements 1-5 – collecting and projecting a substantial amount of light from a quasi-point light source 1 (Figure 1, column 1, lines 40-43) through an aperture defined in a lens cover 4, in the form of a canted radial collimated beams (Figure 1); the quasi-point light source 1 positioned on an optical axis - the vertical axis of symmetry (Figure 1) ; a reflector system 3 at least partially surrounding the lamp 1 and the optical axis (Figure 1); the reflector system 3 shaped to collect , collimate and reflect light emitted by the lamp 1 (Figure 1); the surface of the reflector system 3 being disposed at an angle to project a canted radial beam through the aperture 4 (Figure 1); a canted collimating ring lens 2 disposed around the optical axis, and substantially collimating a radial beam (Figure 1); the canted collimating ring lens 2 not impinging

- on the reflector system 3 (Figure 1); the lens 4 shaped for avoiding reflection of a portion of canted radial beam (Figures 1 and 2, column 1, lines 46-50);
- a portion of the radial collimated light beams reflected by the reflector system 3 into reflected collimated light beams, and the remaining collimated light beams- the light beams refracted through the ring lens in downward direction (not shown) -do not get reflected by the reflector system 3; the un-reflected collimated beams substantially parallel to the corresponding parallel reflected collimated beams (Figure 1) in similar manner as claimed and shown in Figure 6 of the instant application.

***Allowable Subject Matter***

6. Claims 1-15 and 22-26 are allowed.

The prior art of record, including Davis et al. (US Patent No.: 4,969,074), Dejong (US Patent No.: 4,159,511) and Pennow (US Patent No.: 2,359,151) does not show or suggest the applicant's invention as claimed. Specifically, the prior art of record does not disclose an optical system assemblies combining:

a segmented radial disk located on the optical axis, and the radial disk including parabolic or elliptical radial segments having their focal points coinciding with a quasi point source as recited in the amended Claim 1 and previously presented Claim 5;

The above-indicated combination, including segmented radial disk coaxial with the optical axis of the device, makes this invention unique.

Neither combined nor individual teaching of Davis et al. ('074), Dejonc ('511) and Pennow ('151) discloses an optical system including a segmented radial disk and its positioning as detailed above, and as claimed by the applicant.

Therefore Claim 1 is allowed over prior art.

Claims 2-4, 7-15 and 22-26 are necessarily allowed because of their dependency on the allowed base Claim 1.

Claim 6 is necessarily allowed because of their dependency on the allowed base Claim 5.

7. Claims 17-21 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record, including Davis et al. (US Patent No.: 4,969,074), Dejonc (US Patent No.: 4,159,511) and Pennow (US Patent No.: 2,359,151) does not show or suggest the applicant's invention as claimed. Specifically, the prior art of record does not disclose an optical system assemblies combining:

- a lens at least partially covering the aperture; and the lens being conical in section as recited in Claim 17; and
- a canted collimating ring lens including individual sections projecting light in a square or rectangular pattern as recited in claim 29.

The above-indicated combination, including segmented canted collimating ring lens, makes this invention unique.



Claims 18-20 are necessarily objected because of their dependency on the objected base Claim 17.

**Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hargobind S Sawhney whose telephone number is 571 272 2380. The examiner can normally be reached on 6:15 - 2:45.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571 272 2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HSS  
1/5/2006

  
**ALI ALAYI**  
**PRIMARY EXAMINER**